

## REMARKS and ARGUMENT

This paper is in response to the Office Action mailed January 5, 2004 with regard to the above-identified application. This response is being filed within the three-month period set for reply in the Office Action. The Office Action was indicated to be final. A Request for Continued Examination and the associated fee are submitted herewith so that the following arguments will be considered as a matter of right prior to any subsequent appeal. Authorization is provided to charge any additional fee associated with this response, or to credit any over-payment, to Deposit Account No. 50-0573.

Claims 1–8 and 10-25 are pending in the application. Claim 7 has been amended. This response includes no amendments to claims 1-6, 8 and 10-25. No new matter has been added.

### Rejections Under 35 USC § 103(a)

The Office Action includes a rejection of all of the pending claims under 35 USC § 103(a) based on Ameseder '252 in combination with Whitehead and/or Davidson. Ameseder '252 describes an apparatus for disinfecting toothbrushes or the like. The head of the toothbrush can be inserted into a receiving vessel through one of several openings in the apparatus housing. A UV light source is mounted within the housing to expose the toothbrush head to UV light.

Whitehead describes a UV sterilization device with an electronic safety mechanism that includes a complex digital lock circuit and a key-actuated lock. To operate the device, a user must first insert and turn a key and then enter a numerical or alphabetical code to turn on the digital lock circuit. (col. 4, lines 10 – 13.)

Davidson describes a device for providing UV light of controlled wavelength. The patent states that the device is useful for producing UV light in spectral ranges that are more effective than others at producing erythema effect in skin.

To establish a *prima facie* case of obviousness, all of the elements of a claim must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); MPEP § 2143.03. As will be shown with regard to each claim in turn, the combination of Ameseder '252, Whitehead and Davidson does not describe or suggest all of the elements of the pending claims. Moreover, the Examiner has provided no evidence of any suggestion or

motivation to combine the references. Instead, the Examiner has used impermissible hindsight in an effort to reconstruct the present invention in light of the Applicants' own disclosure

**THE COMBINATION OF AMESEDER '252, WHITEHEAD AND DAVIDSON  
DOES NOT DESCRIBE OR SUGGEST EACH ELEMENT OF THE CLAIMS**

***Claims 1-6***

Claim 1 of the present application was amended in response to the previous Office Action (Response dated June 11, 2003) to make more clear that the claimed UV lamp includes a means for physically obstructing finger access to the safety switch. The present Office Action correctly notes that Ameseder '252 does not describe a means for physically obstructing finger access to a safety switch. Instead, the Office Action implies that, at the time the present invention was made, it would have been obvious to provide those features in light of Whitehead. In this regard, the Office Action implies that Whitehead demonstrates an equivalent in the form of a key used to access a lock and thereby a safety switch. The Office Action further implies that the same key and lock of Whitehead are equivalent to an opening adapted to allow passage of an activation tool.

Whitehead does not describe or suggest a means for obstructing finger access to a safety switch, let alone a safety switch that has a tool engaging portion adapted to engage an activation tool. Several reasons as to why this is true were set forth in Applicants' June 11 Response. It is noted that the Examiner deems those arguments to be moot in view of the new grounds for rejection. (Office Action ¶ 1.) However, in the present office action the Examiner has essentially raised the same rejections as in the prior office action, without considering the points raised previously by the Applicants overcoming that rejection. Thus, it is respectfully submitted that the arguments previously presented are not moot, and those arguments are re-presented here for the Examiner's reconsideration.

Claim 1 is clearly distinguishable from the complex lock circuit described in Whitehead. Whitehead includes no description of a means to obstruct finger access to a switch as described in the claim. If one considers that the Whitehead key-actuated lock is a switch (element 60 of Figure 2 is described in the specification as a switch lock), then the switch is physically

accessible. There simply is no means to physically obstruct finger access to the switch lock 60. Contrast this construction with the UV lamp recited in claim 1, which requires both a safety switch (that includes a tool engaging portion) and a means for physically obstructing finger access to the safety switch.

If, on the other hand, one considers element 110 to be the switch of Whitehead, several of the present claim elements are not met. According to claim 1 of the present application, the switch is on the housing and it has a tool engaging portion for engaging an activation tool. Element 110 is shown schematically in Figure 3 of Whitehead, presumably as an internal component, such as a relay or a transistor. (col. 4, lines 14, 15.) Thus, there is no indication that the switch 110 is formed on the housing and no reason to believe that the switch 110 would have a tool engaging portion.

Since neither Ameseder ‘252 nor Whitehead show or suggest a switch in association with a physically obstructing means, the combination of Ameseder ‘252 and Whitehead does not show all of the elements of claim 1, and does not render it or its dependent claims 2–6 obvious.

Claim 6 is non-obvious also because it recites a light shield formed from a tinted translucent plastic material which absorbs UV light. In certain embodiments of the invention, this material prevents potentially harmful UV light from escaping the degermination chamber while allowing a user to visually check the sterilization process. The combination of references cited do not suggest such a feature. Instead, the Office Action suggests that this feature is inherent to the housing of Ameseder ‘252.

There is clearly no disclosure of this combination of properties in Ameseder ‘252. When a reference is silent about an asserted inherent characteristic, evidence used to fill the gap “must make clear that the missing descriptive matter is necessarily present in the thing described in the reference”. *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268 – 69, 20 USPQ2d 1746, 1749 – 50 (Fed. Cir. 1991). In the present case, a housing made from a material that is (1) tinted, (2) translucent plastic, and (3) UV light absorbing is not necessarily present in Ameseder ‘252. Ameseder ‘252 describes a plastic housing that is “visually attractive”. There exist almost limitless forms of plastic that could be used to make a visually attractive housing that are not (1) tinted, (2) translucent and (3) UV light absorbing, as presently recited in claim 6.

Thus, these properties are by no means “necessarily” present in the Ameseder ‘252 housing, as would be required to qualify as inherent under *Continental Can*. In fact, Ameseder ‘252 indicates that the housing reflects UV radiation to form an internal disinfection chamber (col. 5, lines 38-39; col. 6, lines 13-15), casting doubt on its ability to absorb UV light. A plastic material having the properties recited in claim 6 cannot be considered inherent to the Ameseder ‘252 housing.

***Claims 7, 8, 10 and 11***

The Office Action includes no explanation as to why claims 7, 8, 10 and 11 are rejected. However, the Applicants have, on their own accord, amended independent claim 7 to more clearly describe the embodiment recited in the claim.

Claim 7 has been amended to recite that a portion of the degermination chamber is adapted to conform to the shape of the outside of the housing. Support for the amendment can be found, for example, in Figure 5, element 106, and its written description at paragraph 0031. In this embodiment, the degermination chamber is external to the UV lamp housing. Having a portion of the chamber adapted to conform to the outside of the housing prevents potentially harmful UV light from escaping at the junction between the housing and the chamber. These features are clearly distinguishable from the cited references. For at least this reason, claims 7, 8, 10 and 11 are patentable over the references.

***Claims 12-18***

The Office Action also provides no explanation as to why claims 12-18 stand rejected. In order to expedite allowance of the application, the Applicants’ provide herein examples of features recited in these claims that are not shown or suggested by the cited references. Several of these features were pointed out in the Applicants’ June 11 Response. It is again noted that the Examiner deems the arguments presented in that response to be moot in view of the new grounds for rejection. (Office Action ¶ 1.) It is again respectfully contended that the arguments are not moot, and certain of those arguments are re-presented here for the Examiner’s convenience. Where appropriate, the arguments are newly supplemented in view of the new grounds.

Claim 12 requires a switch on the housing and a means for preventing finger access to the switch. The preventing means is selectively moveable in relation to the switch so that one can

not access the switch with one's finger when the preventing means is in a first position, but one can access the switch with one's finger when the preventing means is in a second position. Again assuming that element 60 of Whitehead is a switch, Whitehead shows nothing that is moveable between two positions that would prevent finger access to the switch when in the first position, but allow finger access to the switch when in the second position. Since the combination of Ameseder '252, Whitehead and Davidson do not show all of the elements of claim 12, it is not obvious thereover.

The combination also does not show the elements of claim 13, which include a cover that prevents finger access to electrical terminals. The cover has an opening to allow passage of an activation tool which, when passed through the opening, contacts the terminals and completes an electrical circuit. None of the cited references shows or suggests these features. If Whitehead includes an activation tool, it would be the key 65. A key may in fact be electrically conductive. However, it would not be apparent to use Whitehead's key to contact terminals that are otherwise protected from finger access by a cover. Such an application would defeat the purpose of having a key! Instead, a key generally includes a uniquely shaped surface adapted to turn a corresponding set of tumblers. The purpose of a key is to prevent activation by anything other than the key itself. If Whitehead's key simply connected electrical terminals, it could easily be replaced by any conductive material of the appropriate thickness, perhaps a paper clip or bobby pin. If that were the case, the key's purpose of preventing use by unskilled operators, as contemplated by Whitehead (col. 2, lines 43 – 46), would be frustrated. Clearly, the key of Whitehead does not contact terminals to complete an electrical circuit. As Ameseder '252 and Davidson also do not show the features of the claim, the combination of Ameseder '252, Whitehead and Davidson does not render claim 13 or its dependent claims 14 and 15 obvious.

Claim 16 recites a UV lamp having a switch. The similarities between the structures recited in the claim and that shown in the combination of Ameseder '252, Whitehead and Davidson for the most part end there. Claim 16 also requires a plate having a portion that engages the switch and a tool engaging portion shaped to receive an activation tool. Further, the claim calls for a switch cover that covers the switch and plate and includes an opening to allow passage of the activation tool. Ameseder '252, Whitehead and Davidson show no structure

resembling the recited features. Thus, the cited combination does not render obvious claim 16 or its dependent claims 17 and 18.

***Claims 19-22***

Claim 19 is directed to a germicidal UV lamp defined by several elements. Among those elements are (1) a housing having at least one aperture allowing the passage of UV light, (2) a light shield extending from the housing, (3) a UV transmitting window in the light shield aligned with the housing aperture, (4) means for selectively blocking the transmission of UV light moveably attached to the light shield, the blocking means comprising a filter in an opening that is alignable with the window, the filter being adapted to block the transmission of UV light while allowing passage of visible light.

The Examiner cites Davidson for the purpose of showing a filter in a UV light source. As shown in Figure 3 of Davidson, the light source includes a lamp housing 24 with an open face that is closed by a cover 26. The filter 32 is disposed within the assembly, between a pair of xenon-doped mercury lamps and the cover.

Even if combined, Ameseder '252, Whitehead and Davidson fail to show or suggest the combination of elements recited in claim 19. For the reasons explained in the Applicants' June 11 Response, Whitehead does not show these features. The Davidson filter also does not suggest the elements of the claim for several reasons. The claim recites a light shield extending from the housing. In addition, the claim recites that the blocking means must be moveably attached to the light shield. If it is the Examiner's position that the Davidson cover 26 is a light shield, it is pointed out that the Davidson filter 32 is not moveably attached thereto. Instead, the filter is mounted between the lamps and the cover.

In addition, the Davidson filter is not adapted to block the transmission of UV light while allowing the passage of visible light. Instead, the Davidson filter is selected to allow passage of UV light, for example, at a wavelength of 296.7 nm. At column 4, Davidson further notes that the device can be used to generate UV output in the germicidal range for control of bacteria and other micro-organisms. In this regard, it is clear that the Davidson filter is not intended to block UV light so that visible light can be safely observed, as contemplated by the embodiment of Applicants' claim 19. See also Davidson column 2, lines 25-35, which indicates that xenon

produces a high relative intensity in the visible light and infrared ranges, and that the amount of xenon in the bulbs should be kept low to prevent generation of excess heat. These passages suggest that the Davidson filter absorbs visible light while allowing the passage of UV light. At best, a fair reading of Davidson appears to teach away from the use of a filter that blocks germicidal UV while permitting the passage of visible light.

In addition, Davidson clearly does not show the elements of dependent claims 20-22. Claim 20 further defines the blocking means as including a guard plate having a second opening alignable with the window of the light shield to permit passage of UV light. Claim 21 describes the blocking means as including a guard plate moveably mounted to the light shield. Claim 22 recites that the blocking means includes a guard plate moveably attached to the light shield as a sliding shutter, the sliding shutter able to be selectively positioned so as to prevent or allow the transmission of UV light through the window. Davidson shows none of these things.

For at least these reasons, it is contended that the combination of Ameseder '252, Whitehead and Davidson does not describe or suggest the present invention as recited in claim 19 or its dependent claims 20-22.

#### ***Claims 23-25***

The Office Action indicates that Ameseder '252 and Whitehead disclose nearly all of the elements of claims 23-25, but do not disclose a blocking means comprising an opening having a filter therein. It is respectfully pointed out that claims 23-25 do not recite a filter.

Independent claim 23 recites, among other things, a degermination chamber comprising UV absorbing translucent material. With regard to claim 23, the Office Action provides no explanation as to how this feature is suggested or otherwise rendered obvious by the cited references. If it is the Examiner's position that the UV absorbing translucent material is inherent to Ameseder '252, that position is respectfully traversed. For the reasons set forth above in connection with claim 6, the "reflective" Ameseder housing actually teaches away from making a housing of a UV absorbing translucent material. Even if it were possible for the reflective material to be translucent, it is certainly not necessarily so. Thus, this feature of claims 23-25 cannot be said to be inherent to Ameseder '252. Because the combinations recited in the claims is not shown or suggested by the references cited, claims 23-25 are patentable thereover.

IMPERMISSIBLE HINDSIGHT

The Office Action includes no explanation as to why it would be proper to make the cited combination. It is respectfully contended that there is no motivation or suggestion in the art to modify Ameseder '252 or to combine it with Whitehead or Davidson to arrive at the invention presently claimed. Rather, the present rejection appears to be based upon hindsight to reconstruct the present invention after reading the Applicants' own disclosure. As the Federal Circuit has repeatedly held, such an approach is not permitted.

Our analysis begins in the text of section 103 ... with the phrase "at the time the invention was made." For it is this phrase that guards against entry into the "tempting but forbidden zone of hindsight," when analyzing the patentability of claims pursuant to that section. Measuring a claimed invention against the standard established by section 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher."

Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. Combining prior art references without evidence of such a suggestion, teaching or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

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We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, although "the suggestion more often comes from the teachings of the pertinent references". The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence". In addition to demonstrating the propriety of an obviousness analysis, particular factual findings regarding the suggestion, teaching, or motivation to combine serve a number of important purposes, including: (1) clear explication of the position adopted by the Examiner and the Board; (2) identification of the factual disputes, if any, between the applicant and the Board; and (3) facilitation of review on appeal.

*In re Dembiczaik*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) [Citations omitted].

As noted in the passage above, actual evidence of some suggestion or motivation to combine references must be made of record to support a § 103 obviousness rejection. The Examiner must make the showing clear and particular. In the present case, there is no showing of any suggestion or motivation to make the cited combination. The rejection under 35 USC § 103 set forth in the last Office Action must be withdrawn.

#### **Conclusion and Notes on further Proceedings**

In the present case, there is no evidence to show a suggestion or motivation to combine Ameseder '252 with Whitehead or Davidson. Moreover, even if the combination is made, there are several claim elements that are not described or suggested by the combination. A valid rejection cannot rely on naked assertions of inherency or unsupported implications that claim

elements are known. These assertions must be supported by evidence of record. The cited prior art simply provides no suggestion to produce a device as claimed.

It is believed that the pending claims are patentable over the cited prior art. Therefore, it is respectfully requested that the present rejections be reconsidered and withdrawn. However, if the Examiner repeats the rejections, or sets forth additional new grounds of rejection, it is requested that the next Office Action include a complete analysis of all rejected claims so that the Applicants can have a fair chance to respond in an appeal of this case. Such an analysis should include an explanation of what elements in the prior art references are regarded as corresponding with each element in all of the pending claims. Moreover, if any further rejection is based on a combination of references, an explanation is requested of the Examiner's position as to what motivation or suggestion was used in making the combination, including evidence in the art that supports that examiner's motivation or suggestion, so that the Applicants can have a fair chance to respond, and to clarify the record for any subsequent appeal.

A Notice of Allowance is solicited. If direct communication will expedite the allowance of the application, the Examiner is invited to telephone the undersigned attorney for applicants.

Respectfully submitted,

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